CALL FOR PAPERS

The 8th Workshop on High Performance Scientific and Engineering Computing

http://www.ehpclab.org/icpp06-hpsec/

in conjunction with

THE 2006 INTL. CONFERENCE ON PARALLEL PROCESSING (ICPP-06)

http://www.cse.ohio-state.edu/~icpp2006/

Columbus, Ohio, USA, August 18, 2006

High performance scientific and engineering computing has become a key technology which will play an important part in determining, or at least shaping, future research and development activities in many academic and industrial branches, especially when the solution of large and complex problems must cope with tight timing schedules.

This special workshop will continue to attract and bring together, as in earlier years, computer scientists and engineers, applied mathematicians, researchers in other applied fields, industrial professionals to present, discuss and exchange idea, results, work in progress and experience of research in the area of high performance computing for problems in science and engineering applications.

Among the main topics of interest (but not limited to) are:

- development of advanced parallel and distributed methods
- parallel and distributed computing techniques and codes
- practical experiences using parallel and distributed systems with software such as MPI, PVM, and HPFortran, OpenMP, etc.
- domain decomposition
- loop and task parallelism
- scheduling and load balancing
- compiler, hardware and OS issues for scientific & eng. computing
- memory system and I/O supports for scientific & eng. computing
- hardware/software support for performance, power and energy aware applications
- network, mobile/wireless processing and computing
- performance modeling, evaluation of scientific & eng. computing
- cluster and grid scientific & eng. computing
- high performance clusterware
- enterprise grid computing
- distributed objects for scientific & eng. computing
- distributed parallel computing using web services
- porting legacy science & eng. codes to modern high performance platforms using web portal and software component technologies
- applications to the following areas, but not limited to:
  - computational fluid dynamics and mechanics
  - material sciences
  - space, weather, climate systems and global changes
  - computational environment and energy systems
  - computational ocean and earth sciences
  - combustion system simulation
  - computational chemistry
  - computational physics
  - bioinformatics and computational biology
  - medical applications
  - transportation systems simulations
  - combinatorial and global optimization problems
  - structural engineering
  - computational electro-magnetic
  - computer graphics
  - virtual reality and multimedia
  - semiconductor technology, and electronic circuits and system design
  - dynamic systems
  - computational finance
  - data mining
  - signal and image processing

Important Deadlines

Paper submission Due:	March 06, 2006
Notification of Acceptance:	April 15, 2006
Final camera-ready paper:	May 01, 2006

Submission Information

Authors are expected to submit a paper of at most 20 pages in either PS or PDF format via electronic mail with 5-10 keywords to the workshop program chairs (Profs. Juan Touriño or Lei Pan). Program committee members and external reviewers will provide authors with at least three reviews. Papers will be ranked for relevance to the workshop and technical merit. Accepted papers with at most 8 pages will be published by IEEE Computer Society Press as ICPP-06 workshop proceedings. Selected papers will be considered for a special issue of International Journal of Computational Science and Engineering (IJCSE).

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Laurence T. Yang, St. Francis Xavier University, Canada

Program Co-Chairs

Juan Touriño, University of A Coruña, Spain
Lei Pan, JPL, California Institute of Technology, USA

Technical/Program Committee (to be re-confirmed)

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Tau Leng, Scalable System Group, Dell Inc., USA
Jean-Yves L'Excellent, INRIA, France
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